

Title (en)
PARTICLE BEAM THERAPY SYSTEM

Title (de)
TEILCHENSTRAHLTHERAPIESYSTEM

Title (fr)
SYSTÈME DE THÉRAPIE PAR FAISCEAU DE PARTICULES

Publication
EP 2653191 A4 20140806 (EN)

Application
EP 11858969 A 20110217

Priority
JP 2011053367 W 20110217

Abstract (en)
[origin: US2012211667A1] The objective is to eliminate the effect of the hysteresis of a scanning electromagnet and resume high-accuracy beam irradiation from an irradiation position where it has been interrupted, even in the case where emergency-stop processing is performed during therapy. There are provided an irradiation management apparatus that controls a scanning electromagnet; and an interlock information inputting device that generates an interlock signal for stopping irradiation of the charged particle beam, when a contingency occurs. When irradiation of the charged particle beam is resumed, the irradiation management apparatus performs idle operation in which the scanning electromagnet is controlled, with the charged particle beam unirradiated, from a start step, which is situated prior to a stop step and is different from the initial step in actual irradiation, to the stop step, and then irradiates the charged particle beam from the desired irradiation position coordinates corresponding to the stop step.

IPC 8 full level
A61N 5/10 (2006.01)

CPC (source: EP US)
A61B 5/48 (2013.01 - US); **A61N 5/1043** (2013.01 - EP US); **A61N 2005/1074** (2013.01 - EP US); **A61N 2005/1087** (2013.01 - EP US)

Citation (search report)
• [A] JP 2005296162 A 20051027 - HITACHI LTD
• See references of WO 2012111125A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
US 2012211667 A1 20120823; US 8466441 B2 20130618; EP 2653191 A1 20131023; EP 2653191 A4 20140806; EP 2653191 B1 20150819; EP 2845623 A1 20150311; EP 2845623 B1 20161221; JP 5508553 B2 20140604; JP WO2012111125 A1 20140703; TW 201235068 A 20120901; TW I418380 B 20131211; US 2013253845 A1 20130926; WO 2012111125 A1 20120823

DOCDB simple family (application)
US 201113258240 A 20110217; EP 11858969 A 20110217; EP 14191804 A 20110217; JP 2011053367 W 20110217; JP 2012557728 A 20110217; TW 100135455 A 20110930; US 201313897085 A 20130517